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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,063	12/09/2004	Jens Heim	P/22-246	2265
2352	7590	01/19/2006	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			KIRKLAND III, FREDDIE	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/511,063	Applicant(s) HEIM, JENS	
	Examiner Freddie Kirkland III	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-10 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Rhodes et al. US Patent 5,952,587.

With respect to claims 4, 5 and 6, Rhodes teaches an antifriction bearing comprising: an inner bearing ring (40); an outer bearing ring (38) spaced outward from and extending around the inner bearing ring; a rolling antifriction elements (42) in rolling contact with the inner and the outer rings; sensors (45) at locations around the rings for determining length changes in the rolling contacts between the antifriction elements and one of the rings (figure 2b), wherein the sensors further comprise devices for determining the length change in the rolling contact for several of the antifriction elements over respective arcuate regions of the rings and the sensor units each are operable to define region vectors for the length changes of the rolling contacts in their respective regions (figures 5,6 and 9, col. 4 lines 60-67, col. 5 lines 1-11, col. 6 lines 38-67, the sensors measure loads as vectors in space, therefore each sensor measures a load in its region); an interface connected with the sensor units for receiving the region vectors from each of the sensor unit (figure 5, the connection made between each sensor the control unit 56); and an evaluation unit (56) for evaluating the region vectors

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supplied by the interface for determining a condition of the bearing that is dependent upon the length change in the rolling contacts between the antifriction elements and the one ring (figure 5, col. 6 lines 38-67).

With respect to claim 7, Rhodes teaches the evaluation device being disposed outside the bearing (figures 1 and 5, col. 5 lines 12-28).

With respect to claim 8, Rhodes teaches the sensors arrayed in three groups to provide at least three region vectors to the interface (figure 2B, col. 3 lines 44-65, the sensors can be arrayed in three groups and each sensor provides load vectors to be process by the control unit).

With respect to claims 9 and 10, Rhodes teaches the evaluation unit is operable to evaluate region vectors ((figure 2B, col. 3 lines 44-65) from each sensor comprising circuitry (figure 6) that is disposed on the bearing (figure 2B).

Allowable Subject Matter

Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Claim 11 is found to be allowable over the prior art because the prior art does not disclose or suggest the claimed "wherein the region ASIC is operable to carry out a vector addition of individual vectors which are determined by the sensors in order to form an overall vector for the region" in combination with the remaining claim steps as set forth in claim 11.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freddie Kirkland III whose telephone number is 571-272-2232. The examiner can normally be reached on Monday through Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FKIII
1/17/06


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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